and when the operation of the motor is opposite to, or conflicts with, the motor's operation corresponding to said control signals] stored responses include past user's responses to interactions initiated by the vehicle.

34. (Amended) A toy vehicle as recited in claim 27 wherein said [control logic is based on an algorithm that employs random elements, which determine when the operation of the motor is responsive to control signals received from input control mechanisms, and when the operation of the motor is opposite to, or conflicts with, the motor's operation corresponding to said control signals] independent operation of the vehicle includes the operation of the motor in a manner that conflicts with its normal operation when it is responsive to input control mechanisms.

37. (Amended) A toy vehicle as recited in claim 36 wherein said control logic segment is based on an algorithm that employs random [elements] function, which determine when the operation of the steering mechanism is responsive to control signals received from input control mechanisms, and when the operation of the steering mechanism is opposite to, or conflicts with, the steering operation corresponding to said control signals.

38. (Amended) A toy vehicle as recited in claim 36 wherein said control logic segment [is based on] includes an algorithm that evaluates user's interactions with the vehicle to determine when the operation of the steering mechanism is responsive to control signals received from the input control mechanisms, and when the operation of the steering mechanism is independent of said control signals.

REMARKS

Reconsideration of the above-identified application in view of the amendments to the claims above and the remarks following is respectfully requested.

Claims 1-5, 7-10, and 12-38 were originally in this case. Claims 1-5, 7-10, and 12-38 have been rejected. Claims 1-5, 7, 10, 12-34, 37 & 38 have now been amended.

Claim Rejections – 35 USC § 112

The Examiner rejected claims 2, 17-21, 24 and 34 under 35 U.S. C. § 112, second

paragraph, as being "indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention." The Examiner pointed out that each of claims 2, 24 and 34 recites the limitation "random elements," and that it is not clear what the applicant intends to claim through this recitation.

Claims 2 and 24 have now been amended by replacing the term "random element" with the term "random function." Further, the term "random elements" has been deleted from claim 34. It should, also, be noted that the term "random function" is now being recited in claims 26, 27 and 37.

The specification at page 9 describes one way to select the operating state of the vehicle:

"The microprocessor is programmed to reply in different states to these responses. The states are selected either at **random** or based on a predefined algorithm" (emphasis added).

Also, the specification at page 32 discloses the use of random elements, i.e., random function:

"Said behavioral response of the car device to motion commands is classified into three main categories: loyal, defiant and independent. The selection between said three categories is dependent on the operating state in effect, the type of the last response and the confidence level of the last response. A proposed selection criterion is shown in **FIGS 35, 36, 37 & 38**. Said selection criterion incorporates **random elements** to heighten the enjoyment of play" (emphasis added).

Further, the specification at page 33 discloses the following:

"For example, a toy car device can be built including **random elements** that control the selection of the car "mood," and the implementation of said loyal, defiant and independent movements" (emphasis added).

As disclosed in the specification, the terms "random" and "random elements" are being used in the specification as one way to control the vehicle, and to select one of its various operating states. These terms are synonymous with the term "random function," and are being used in a manner that is consistent with the ordinary meaning of this term. Accordingly, it is

believed that the Examiner's rejection of claims 2, 24 & 34, pursuant to **35 U.S. C. § 112**, second paragraph, related to the use of the term "random elements" has been addressed.

Further, the Examiner pointed out that claim 16 recites the limitations "user's responses to interactions" and "normal responses to interactions," and that "it is not clear what are considered to be user's responses to interactions and what is considered to be normal responses to interactions."

Claim 16 has now been amended by deleting the term "normal responses," and by explaining that the knowledge information is based on past user's responses, and that the control algorithm compares current user's responses with past user's responses (stored responses). Accordingly, it is believed that the Examiner's rejection of claim 16 pursuant to **35 U.S.C. § 112**, second paragraph, has been addressed.

In addition, the Examiner pointed out that claim 17 recites the term "said responses," and that it is not clear whether applicant is referring to the user's responses, normal responses, or both.

Claim 17 has now been amended to clarify that the term "said responses" refers to both past and current responses by the user. Accordingly, it is believed that the Examiner's rejection of claim 17 pursuant to **35 U.S.C. § 112**, second paragraph, has been addressed.

Claim Rejection – 35 USC § 102

Anticipation by Gerold et al (U.S. Patent No. 6,039,626)

In the Office Action Summary, the Examiner rejected claims 1-5, 7, 8-10, and 12-38 under **35 U.S.C. § 102 (e)** as being anticipated by Gerold et al.

In United States Patent No. 6,039,626 (hereinafter the '626 patent), Gerold et al disclose an invention that "**relates to a voice-activated toy truck having animated features that move in response to a child's voice**" (col. 1, lines 6-8). The specification explains:

> "**A sound detecting circuit adapted to detect sound provides actuating signals to control circuit that is coupled to the first and second actuator assemblies and that causes the assemblies to operate in the manner described**" (col. 1, lines 40-44).

In addition, the specification explains that the toy truck "**is provided with a number of switches that may be used to actuate the animated feature actuator assembly 47 or may be used to actuate a sound generating device such as a speaker 115 causing it to generate audible phrases or sound effects**" (col. 5, lines 32-37).

Further, with reference to **FIG. 13**, the specification describes the tasks performed by "program 3" in response to an input received from the sound detecting circuit **148** (col. 9, lines 24-48). This description, as well as the logical steps included in **FIG.3** indicate that one of the tasks performed in response to an input received from the sound detecting circuit is to "**actuate[s] the wheel-drive gear assembly 48 by driving the motor 52 in a forward direction**" (col. 9, lines 38-41).

Therefore, the only "pre-programmed movement" of the toy truck, which is disclosed in the '626 Patent, is directly responsive to the input received from the sound detecting circuits and, as such, it is responsive to an "**input control mechanism.**" In fact, **FIGS. 11 & 14** of the flowchart of the computer program for the microprocessor indicate that, in the absence of an input received from either the control switches (119, 132, 141 & 144), or the sound detecting circuit, the toy truck will "**POWER DOWN.**" This means that the toy truck does not generate any movement on its own. Rather, any movement of the truck is in response to an activation of a control switch, or a trigger of the sound detecting circuits.

Also, the toy truck does not initiate any interactions with the player. Rather, it responds to commands received from the player that is in the form of switch activation, or a sound produced by the player.

Accordingly, it is clear that:

First, other than individual switches located on the toy truck, and a sound detecting circuit, Gerold does not disclose any mechanism or structure that controls the operation of the truck;

Second, Gerold does not disclose any mechanism or structure that stores responses <u>by the user</u> to interactions initiated, or generated, by the toy truck; and

Third, Gerold does not disclose or describe any structure that "generates interactions with the user of the vehicle," rather the disclosure at col. 5, lines 33-37, simply states:

"- - - the toy truck **10** is provided with a number of switches that may be used **to actuate the animated feature actuator assembly 47** or may be used **to actuate a sound generating device** such as a speaker **115** causing it to generate audible phrases or sound effects" (emphasis added).

This clearly means that the "**animated feature**," and the "**audible phrases or sound effects**" are simply responses by the toy truck to the activation of switches (i.e. input control means or input control mechanisms).

In the current invention, the interactions are generated by the vehicle <u>independent</u> of any switch activation, or an actuation of a sound activated sensor, i.e., <u>independent</u> of any activation of input control means, or input control mechanisms. In addition, the input control mechanisms are used by the player to respond to said interactions generated by the vehicle.

Similarly the disclosure at col. 8, lines 8-15, states:

"- - - the microprocessor **146** actuates the speaker **115** causing it to generate a phrase. **The phrase generated varies depending on the switch actuated.** For example, **if the gas tank switch 119 was actuated**, then the speaker **115** generates the phrase, "swallow, Ahh, thanks buddy that was mighty good." Or, **in**

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response to a first turn of the helmet switch 132, the speaker 115 generates the phrase "Tune me up buddy, I 'am running' rough today."" (emphasis added).

Clearly, the disclosed phrases are generated by the toy truck **in response to** an activation of a switch, and are not independently generated by the toy truck.

Furthermore, the specification of the present invention, pages 5, 6, 14, 15, 16, 18, 19 & 21, as well as amended claims 1, 10 & 25, clearly define input control mechanisms to include various types of sensors including sound activated sensor, and voice activated module. Therefore, the terms "input control means," and "input control mechanisms," as used in amended claims, include a sound activated circuit or switch.

Also, amended claim 1 recites the following limitation:

> **"additional means to control the operation of the vehicle, and which causes the vehicle, at certain times, to function in a manner that is different from its normal operation when it is responsive to said input control means"**

The voice activated truck disclosed in the '626 Patent operates in a predictable consistent manner in response to the activation of any of its switches, or the activation of the sound detector circuit. This means that each time any of the switches is activated, the toy truck responds with the same, identical and consistent operation. Similarly, each time the sound detection circuit is actuated, the truck responds in the same way. Therefore, the toy truck disclosed in the '626 Patent does **not** "function in a manner that is different from its normal operation when it is responsive to said input control means."

Conversely, as disclosed in the specification of the current invention, and as recited in amended claim 1, the algorithm described in the current invention causes the vehicle, at certain times, to operate independently of the input control means (including a sound activated switch if used), and in a manner that is **different** from its normal operation when the vehicle is directly

controlled by the user using said input control means. Accordingly, it is believed that amended

independent claim 1 is patently distinguishable over the cited reference of Gerold et al.

It is also believed that dependent claims 2-5 and 7-9 are patently distinguishable over the

cited reference of Gerold et al for at least the same reasons as independent claim 1, from which

these claims depend, and for additional features that dependent claims 2-5 and 7-9 recite.

Amended claim **10** recites the following limitations:

> **"a control logic segment that generates interactions with the user of the vehicle,
> computer memory to store user's responses to said interactions, and
> a control logic segment that is based on user's responses to interactions, and which,
> at certain times, causes the vehicle to operate in a manner that is different from its
> normal operation when it is responsive to the input control mechanism."**

As discussed above, the toy truck disclosed in Gerold et al does not generate any

"interactions with the user of the vehicle" that would require a response from the user. Further,

the toy truck does not store in its computer memory any responses or actions by the user. In

addition, as set forth in the above argument related to amended claim 1, the toy truck does not

operate in "a manner that is different from its normal operation when it is responsive to the input

control mechanism."

Accordingly, it is believed that amended independent claim 10 is patently

distinguishable over the cited reference of Gerold et al. It is also believed that dependent claims

12-1 are patently distinguishable over the cited reference of Gerold et al for at least the same

reasons as independent claim 10, from which these claims depend, and for additional features

that dependent claims 12-15 recite.

Amended claim **16** recites the following limitations:

> **"a program segment that generates interactions with the user of the vehicle,
> computer memory to store user's responses to interactions,
> a program segment that defines knowledge information based on past user's
> responses to interactions, and**

a program segment that compares current user's responses to stored responses to determine when the operation of the vehicle is different from its normal operation when it is responsive to said input control mechanisms."

As discussed above, the toy truck disclosed in Gerold et al does not generate any "interactions with the user of the vehicle" that would require a response from the user. Further, the toy truck does not store in its computer memory any responses or actions by the user. In addition, the '626 Patent does not describe any algorithm, or process, that "defines knowledge information based on past user's responses to interactions," and does not disclose any algorithm or process that "compares current user's responses to stored responses to determine when the operation of the vehicle is different from its normal operation when it is responsive to said input control mechanisms."

Accordingly, it is believed that amended independent claim 16 is patently distinguishable over the cited reference of Gerold et al. It is also believed that dependent claims 17-21 & 26 are patently distinguishable over the cited reference of Gerold et al for at least the same reasons as independent claim 16, from which these claims depend, and for additional features that dependent claims 17-21 & 26 recite.

Amended claim **22** recites the following limitations:

"a program segment that generates interactions with the user of the vehicle, a database that includes predetermined responses to said interactions, and a program segment that compares user's responses to interactions with said predetermined responses to determine when the movement of the vehicle is responsive to the input control mechanisms."

As discussed above, the toy truck disclosed in Gerold et al does not generate any "interactions with the user of the vehicle" that would require a response from the user. Further, the toy truck does have a database that includes predetermined responses to the interactions generated by the vehicle. In addition, the '626 Patent does not describe any algorithm, or

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process, that "compares user's responses to interactions with said predetermined responses to determine when the movement of the vehicle is responsive to input control mechanisms."

Accordingly, it is believed that amended independent claim 22 is patently distinguishable over the cited reference of Gerold et al. It is also believed that dependent claims 23-25 are patently distinguishable over the cited reference of Gerold et al for at least the same reasons as independent claim 22, from which these claims depend, and for additional features that dependent claims 23-25 recite.

Amended claim 27 recites the following limitations:

> **"a control logic executed on the processor that controls the operation of the vehicle independent of control signals received from said input control mechanisms, and which includes an algorithm that employs at least one of a random function, and a function that determines if the manner in which a user interacts with the vehicle is consistent with past interactions."**

The toy truck disclosed in Gerold et al does not include any algorithm, or process, that "determines if the manner in which a user interacts with the vehicle is consistent with past interactions."

Accordingly, it is believed that amended independent claim 27 is patently distinguishable over the cited reference of Gerold et al. It is also believed that dependent claims 28-38 are patently distinguishable over the cited reference of Gerold et al for at least the same reasons as independent claim 27, from which these claims depend, and for additional features that dependent claims 28-38 recite.
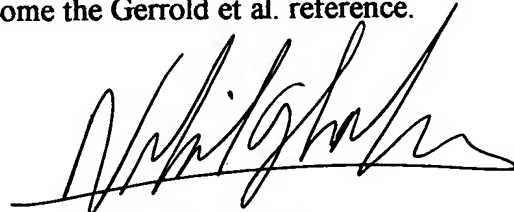
CONCLUSION

Reconsideration of the above-identified application in view of the amendments and remarks above is respectfully requested. The Applicant firmly believes that the amended claims

address all of the Examiner's grounds for rejection. It is also believed that this application is in a condition for allowance.

SUBSTANCE OF INTERVIEW, DATED MAY 5, 2005

At the request of the applicant, a face-to-face personal interview took place on May 5, 2005, to discuss claim rejections under 35 USC § 112, and 35 USC § 102, as set forth in the Office Action Summary mailed on February 25, 2005. The discussion focused on the means-plus-function language employed in claim 1, and the Gerrold et al. reference. The examiner's supervisor explained how said reference reads on the claims as presently drafted. He, also, indicated subject matter which appears to overcome the Gerrold et al. reference.

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